

217/ 782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

The Dow Chemical Company
Attn: Julie Woodard
26332 South Frontage Road
Channahon, Illinois 60410

Application No.: 03010014

I.D. No.: 029010AAV

Applicant's Designation:

Date Received: January 13, 2003

Subject: Insulated Foam Panels Manufacturing Plant

Date Issued:

Expiration Date: (One Year from Date
of Issuance)

Location: 1255 North Fifth Street, Charleston

This Permit is hereby granted to the above-designated Permittee to OPERATE emission units(s) and/or air pollution control equipment consisting of the polyisocyanurate foam application head, two curing ovens, foam boards trimming and cutting operations controlled by dust collector and two blowing agent and one fire retardant pressure storage tanks pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year of volatile organic materials (VOM)). As a result the source is excluded from requirement to obtain a Clean Air Act Permit Program Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2a. Blowing agent emissions shall not exceed 3 tons/week and 98.3 tons/year of VOM and 0.5 tons/week and 15.0 tons/year of non-VOM (Class II substances regulated under Clean Air Act).

Emission should be calculated using the following equation:

$$E_i = U_i - \sum L_j \times D_j \times C_{ij}$$

Where

E_i - i-blowing agent emission (lb)

U_i - i-blowing agent usage (lb)

L_j - Foam board j-type production (board-feet)

D_j - Foam board j-type density (lb/board-foot)

C_{ij} - i-blowing agent content in j-type final product (fraction)

The value of each type of blowing agent content in each type of final products, C_{ij} , shall be determined by the testing as specified in the construction permit 02040064 in the Condition 1.1.7(a).

These limits are based on the maximum board production rate of 289,000,000 board-feet/year and blowing agent usage of 1,500 tons/year. Compliance with annual limits shall be determined from a running total of 52 weeks of data.

3. This permit is issued based on negligible emissions of particulate matter from the board trimming/cutting operations. For this purpose emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
4. The Permittee shall maintain weekly records of the following items:
 - a. Production rate of each type of insulation boards (board-feet/wk, board-feet /yr);
 - b. Usage of each type of blowing agent (lb/wk, lb/yr); and
 - c. Blowing agent emission calculations (tons/wk, tons/yr).
5. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA request for records during the course of a source inspection.
6. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
- 7a. Within 90 days upon receipt of this permit each type of blowing agent content in each type of the final product shall be measured as specified in the construction permit 02040064 in the Condition 1.1.7(a).
- b. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.

- iii. The specific determinations of emissions and operations which are intended to be made, including sampling and monitoring locations.
- iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods. The specific sampling, analytical and quality control procedures which will be used, with an identification of the standard methods upon which they are based.
- v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justifications.
- vi. Any proposed use of an alternative test method, with detailed justification.
- vii. The format and content of the Source Test Report.
- c. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized.
- d. The Final Report shall include as a minimum:
 - i. A summary of results.
 - ii. General information.
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
 - iv. Detailed description of test conditions, including:
 - A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption,
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing, and
 - C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
 - vi. An explanation of any discrepancies among individual tests or anomalous data.
 - vii. The results of all quality control evaluation, including a copy of all quality control data.
- 8. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance and Enforcement Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

9. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
 - a. Insulation boards production rate of each type (board-feet/yr);
and
 - b. Blowing agent usage of each type (tons/yr).

If you have any questions on this, please call Valeriy Brodsky at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:VJB:jar

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance and Enforcement Section
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Insulated Foam Panels Manufacturing Plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from the plant. The resulting maximum emissions are well below the levels, e.g., 100 tons/year of volatile organic materials, at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

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